DEPARTMENT OF NOTES, REVIEWS, ETC.

It is the purpose, in this department, to present from time to time brief original notes, both of methods of work and of results, by members of the Society. All members are invited to submit such items. In the absence of these there will be given a few brief abstracts of recent work of more general interest to students and teachers. There will be no attempt to make these abstracts exhaustive. They will illustrate progress without attempting to define it, and will thus give to the teacher current illustrations, and to the isolated student suggestions of suitable fields of investigation.—[Editor.]

A SYSTEM FOR RECORDING CYTOLOGICAL MATERIAL, SLIDES AND LOCATIONS ON THE SLIDES

The following contribution is offered in full recognition of the fact that many cytologists already have in use excellent methods of recording their material and slides. Indeed many of the most essential details of the present system of recording slides have been taken over from a method in use by McClung, for which privilege the writer acknowledges his indebtedness. The system to be described has stood the test of the writer's use in all particulars and it is offered here in hope that it may serve as a suggestion for cytologists, who as yet have no recording method, on which to base a system serving their own particular needs. If the scheme here outlined is impractical for certain workers this note will at least serve to indicate the requirements that a cytological recording method must meet to be really efficient.

Two sets of cards are used, one to record the gross material and the other the slides and locations on the slides. On the former card (Fig. 1) are all the notes concerning the material from the fresh condition until it is embedded. On this card is to be found:

1. the serial lot number.
2. the material, the animal or plant from which it was taken, the age and other notes of possible interest.
3. place of collection and condition of obtaining the material.
4. dates of fixation.
5. fixing fluid and the temperature the fluid was used at.
6. time in fluid.
7. washing and dehydration.
8. clearing methods used.
9. embedding methods and materials.
10. location of embedded material.

Under "Dehydration" in Fig. 1 the time the material remains in each grade of alcohol is recorded beneath that grade. In case the more recent practice is used (not yet published) of displacing the water with alcohol drop by drop an arrow is drawn, as indicated, to the percentage of alcohol the material is in at the end of the displacement. If the tissue was preserved in 70% alcohol then an arrow would be drawn to "70%" and later when the dehydration is continued a second arrow would be drawn to the grade at the

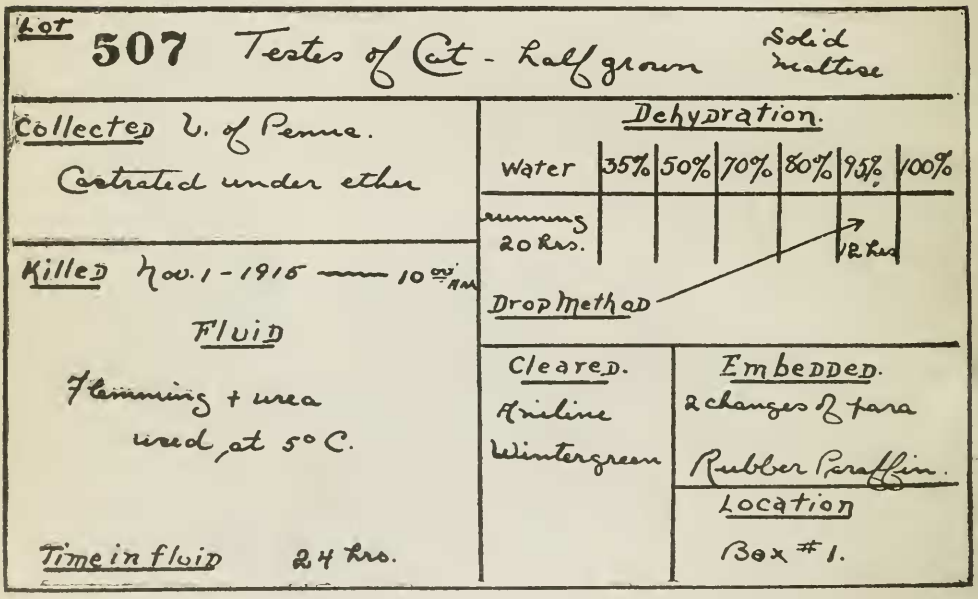

Fig. 1

end of the series. The writer embeds his material immediately as in the long run it saves considerable time and tissue in paraffin is much easier to carry about the country than in bottles. The material under each lot number is usually embedded in a petri dish (the lot number on a small piece of paper is embedded with the material). The disk of paraffin after removal from the petri dish is wrapped in wax paper and filed in a 3x5 cardboard filing case behind an index

card bearing the lot number. In this way the material is compact and easy to get at.

On the second set of cards is to be found:

1. lot number.
2. slide number.
3. number of box in which slide is located.
4. stain used.
5. what is to be found on the slide.
6. thickness of sections.
7. condition of slide (i. e. good fixation or stain).
8. location of favorable areas on the slide.
9. notes concerning certain locations.
10. areas that have been drawn.
11. areas that have been photographed.
12. areas that have been drawn or photographed and used for publication.

The number is scratched on each slide of the series. If spermatogenesis is being worked upon one card is devoted to a single phase in the process found on a particular slide. Similar phases on other slides have their own cards. This card is labeled as shown in Fig. 2 under "Shows". The same slide may therefore have several cards devoted to it should it show more than a single phase. These cards are filed first behind an index card bearing the lot number and then in numerical order behind index cards bearing the phase name of the particular stage they happen to represent. When the observations do not deal with spermatogenesis then, of course, the cards are classified according to the special need.

As can be seen in Fig. 2 there is a place for forty readings. The right hand reading of the mechanical stage is placed above the short line, the horizontal reading is put beneath it. The slide is first searched with a low power lens and readings of apparently favorable locations are put down. Afterwards these locations are tested with the oil immersion lens and either crossed out or drawn. When the figure is drawn the location is circled as shown in Fig. 2. Any notes that are to be made are indicated by the figures in the space to the right of the readings. These numbers refer to corresponding numbers on the back of the cards under which the notes are written. Small sketches may also be put in these spaces

to recall what the reading is of. When the plates have been prepared for publication the figure number is entered in the square opposite the reading. When the cell has been photographed this information is also placed here with the number of the photo-

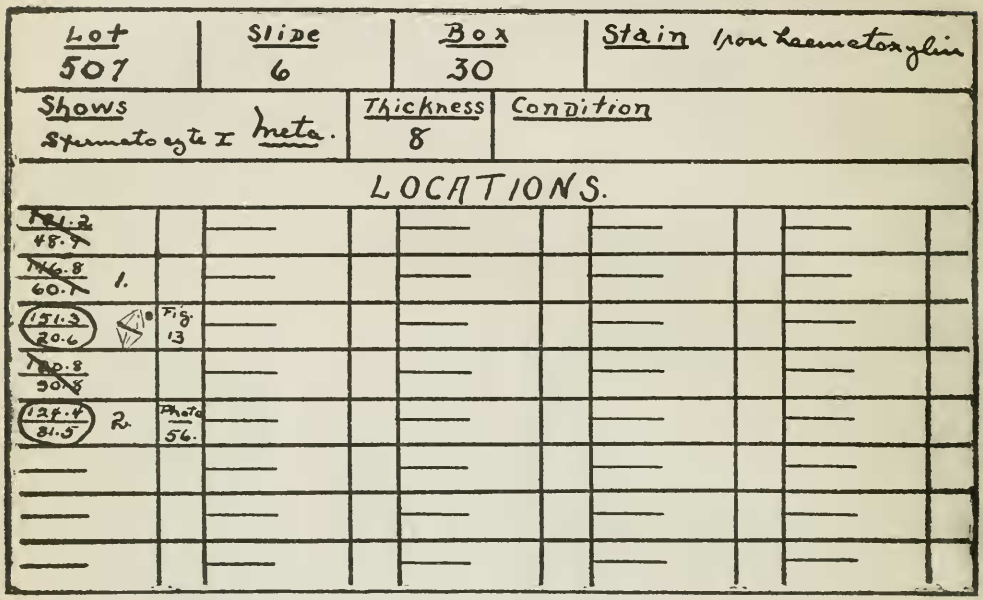

Fig. 2

graph. With these records should the plates be lost or when the original of a figure is to be examined the location on the slide may readily be found.

With the records on these cards before him the investigator has all his data well in hand for the preparation of his paper.

Zoological Laboratory, ROBERT T. HANCE.
University of Pennsylvania.

A MINIATURE DARK ROOM FOR USE WITH THE MICROSCOPE

All microscopists prefer to work either at night or in a darkened room. Using the microscope under such conditions does away with the strain to which both the observing and the unused eye are subjected by the side light—i. e., light coming from sources